

- EPODOC / EPO

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OPD - 1998-12-22  
TI - NETWORK TERMINAL EQUIPMENT  
IN - SATO SAYAKA  
PA - RICOH KK  
IC - G06F19/00 ; G03G21/00 ; H04M11/00  
- WPI / DERWENT

TI - Automatic replenishment method for paper, toner used in terminal equipment connected to network, involves transmitting order for goods replenishment, if remnant amount of goods consumed is less than standard value

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PA - (RICO ) RICOH KK  
IC - G03G21/00 ;G06F19/00 ;H04M11/00  
AB - JP2000187698 NOVELTY - The method involves detecting remnant consumable goods in terminal equipments (1-3) connected to a network (100), using a detector (14). This detected amount is compared with a standard data of goods consumption, stored in a database (13). If the remnant amount is lesser than standard value, an order for replenishment of the good is created and transmitted.

- USE - For replenishment of paper, toner used in terminal equipments connected to a network.

- ADVANTAGE - Eliminates need for separate facsimile for each terminal equipment for transmission of order. Eliminates need for continuous checking of remnant amount of goods, thereby reducing workload of operator.

- DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of terminal equipments connected to a network.

- Terminal equipments 1-3  
- Database 13  
- Detector 14  
- Network 100  
- (Dwg.1/4)

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- PAJ / JPO

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AP - JP19980376409 19981222  
IN - SATO SAYAKA  
PA - RICOH CO LTD.  
TI - NETWORK TERMINAL EQUIPMENT  
AB - PROBLEM TO BE SOLVED: To provide network terminal equipment for easily managing and supplying consumable stores.

- SOLUTION: Network terminal equipment 1 connected with a network 100 is provided with an order management controlling part 11, a data base 13 for storing data such as each consumable store list and the minimum residual value of consumable stores, and a residual consumable store detecting part 14. The order managing part 11 prepares order data by capturing residual consumable stores necessary in network connected terminal equipment 2 and 3, and transmits the order data to the designation of order. Thus, it is not necessary to load any facsimile equipment on each terminal equipment. Also, it is not necessary for an operator to order consumable stores by checking the article number, the destination of order, and the quantity of order of the consumable

stores to be supplied, and it is possible to improve the efficiency of a work.

I G06F19/00 ;G03G21/00 ;H04M11/00

• NOTICES •

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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DETAILED DESCRIPTION

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[Detailed description]

[0001]

[The technical field to which invention belongs] this invention relates to the network terminal unit connected to a network.

[0002]

[Prior art] Conventionally, the terminal unit by which the network connection was carried out was used in the terminal unit, for example, when the existence of articles of consumption, such as a form or a toner, was checked, it was performed by an operator going to the installation of a direct terminal unit, and an operator checking, using the tool which supervises the status of a terminal through a network.

[0003]

[Object of the Invention] However, in the network terminal unit shown in the above-mentioned conventional example, as a result of having grasped the status of an article of consumption, when an article of consumption needed to be filled up, the operator had the problem that the lot number of the article of consumption to fill up or a type number, an order place, an order quantity, etc. had to be searched and ordered from a ledger or computer data.

[0004] Although these operations were smoothly performed when there was an order manager who manages the residue of an article of consumption, the order manager was absent, it had to carry out by having interrupted the task which should be processed when an operator is needed and it carries out each time, and for an operator, the burden not to consider started and there was a problem reduce the luminous efficacy of a task.

[0005] Moreover, possibility that a mistake, such as mistaking and ordering an order place and a lot number, would occur became high, and there was a problem that waste of energy arose.

[0006] this invention is accomplished in view of the above-mentioned \*\*\*\*\*, and aims at offering the network terminal unit which can perform a management and a supplement of an article of consumption easily.

[0007]

[The means for solving a technical problem] In order to solve the aforementioned technical problem, invention of claim 1 publication In at least one or more sets of the network terminal units connected to a network A store means to store the criteria data of the article of consumption in a network terminal unit, A detection means to detect the residue data of the present article of consumption in a network terminal unit, A comparison means to compare the criteria data stored by the residue data detected by the detection means, and the store means, When residue data are less than criteria data with a comparison means, it is characterized by having an ordering data creation means to create the ordering data about the article of consumption of these \*\*\*\*\* data, and a transmitting means to transmit the ordering data created by the ordering data creation means to an order place.

[0008] Invention of claim 2 publication has each data of the reference value of the residue data of an article of consumption, the name of article of this article of consumption, a lot number, a type number, an order quantity, and an order place in invention of claim 1 publication, criteria data are constituted, and it is characterized by an ordering data creation means creating ordering data based on criteria data.

[0009] It is characterized by a transmitting means transmitting invention of claim 3 publication in invention of claim 2 publication based on the data of the order place stored in criteria data.

[0010] Invention of claim 4 publication is set to invention given in any 1 term of claims 1-3. An inquiry means to ask a residue information in all the network terminal units connected to a network when residue data are less than criteria data with a comparison means, In case it has an edit means to edit the reply to an inquiry means and ordering data is created by the ordering data creation means, it is characterized by creating ordering data based on the data edited by the edit means.

[0011] The criteria data in which invention of the publication of any one school of four is stored for invention of claim 5 publication by the store means from a claim 1 have data of budget per unit days beforehand, and are constituted, and when exceeding the order amount of money of the ordering data created by the ordering data creation means, it is characterized by having a notice means to notify the purport to a desired network terminal unit.

[0012] Invention of claim 6 publication is characterized by transmitting ordering data by electronic mail or facsimile by the transmitting means in invention given in any 1 term of claims 1-5.

[0013]

[Gestalt of implementation of invention] Next, with reference to an accompanying drawing, the network terminal unit which is the enforcement gestalt of this invention is explained in detail. If drawing 4 is referred to from drawing 1, the gestalt of enforcement of the network terminal unit by this invention is shown.

[0014] Drawing 1 is the block diagram showing the configuration of the network terminal unit which is the enforcement gestalt of this invention. In drawing 1, it connects with the terminal unit 2 and the terminal unit 3 on a network 100, and the network terminal unit 1 (a terminal unit 1 is called hereafter) which is the enforcement gestalt of this invention is mainly constituted by the order supervisory-control section 11, the network communication section 12, the database section 13, and the article-of-consumption residue detection section 14.

[0015] The network communication section 12, the database section 13, and the article-of-consumption residue detection section 14 are connected to the order supervisory-control section 11, and a management of the article of consumption of a terminal unit 1 and a supplementary control are performed among it. If the information (henceforth an article-of-consumption residue information) which tells that the article of consumption of a terminal unit 1 specifically

became the predetermined amount decided beforehand from the article-of-consumption residue detection section 14 is inputted. The order supervisory-control section 11 searches the database section 13. The required name of article of an article of consumption, Article-of-consumption data, such as a lot number, are gathered, and the order place of a required article of consumption is determined, it edits into a predetermined format, using the gathered article-of-consumption data as ordering data, and ordering data is transmitted through the network communication section 12.

[0016] Moreover, the order supervisory-control section 11 will perform the same operation as the above, if an article-of-consumption residue information is inputted from other terminal units 2 or terminal units 3 equipped with the same device as a terminal unit 1.

[0017] Furthermore, when an article-of-consumption residue information is inputted from one of terminal units, the order supervisory-control section 11 can also be set up so that it broadcasts to other terminal units 2 and 3 on a network, and the above-mentioned operation is performed, article-of-consumption data may be totaled and an order operation may be performed.

[0018] moreover, when the order limit data per unit days or the present order total amount data, and the total order amount data are stored in the database section 13, the order supervisory-control section 11. An order quantity is determined after performing data processing with reference to these data of the database section 13 based on a predetermined operation program. It is also possible to set up so that it may edit into a predetermined format and ordering data may be transmitted through the network communication section 12 as ordering data like the above.

[0019] According to the designation data inputted from the order supervisory-control section 11, the network communication section 12 transmits ordering data to an order place through a network 100, and performs a control of sending of the information on other terminal units 2 on a network 100, or the terminal unit 3, and a reception.

[0020] Data, such as the mail address of data, such as a lot number of articles of consumption, such as a form for which the database section 13 is used at each terminal, or a toner, a name of article, the amount of money, and the residue minimum amount, and the order place of each article of consumption, or FAX number, are stored. Moreover, the order limit data per unit days of each article of consumption set up beforehand are stored if needed.

[0021] The residue (henceforth a setting residue value) set up beforehand is memorized to each article of consumption required for a terminal unit 1, and the article-of-consumption residue detection section 14 transmits an article-of-consumption residue information to the order supervisory-control section 11, when it is judged that the article of consumption reached the setting residue value.

[0022] Next, an operation of the network terminal unit which is the enforcement gestalt of this invention is explained. Drawing 2 is a flow chart which shows a management of the article of consumption in a terminal unit 1, and a supplementary basic operation.

[0023] First, if the article-of-consumption residue information which shows that the article of consumption reached the setting residue value from the article-of-consumption residue detection section 14 is inputted, the order supervisory-control section 11 Search the data of the article of consumption stored in the database section 13, and it judges whether the inventory of the inputted article of consumption (supply) is enough (step S201). Article-of-consumption data, such as a name of article of an article of consumption required when it is judged that there is no inventory, and a lot number, are gathered. Moreover, it edits and creates to a predetermined format, determining the order place of a required article of consumption, and using the gathered article-of-consumption data as ordering data (step S202), and transmits to an order place through the network communication section 12 (step S203).

[0024] Drawing 3 is a flowchart in which other examples of the network terminal unit which is the enforcement gestalt of this invention of operation are shown. In drawing 3, the example of the terminal unit 1 when the article-of-consumption residue information which shows that the article of consumption in a terminal unit 2 reached the setting residue value from other terminal units 2 connected to a network 100 to the terminal unit 1 is inputted of operation is shown.

[0025] First, it judges whether the order supervisory-control section 11 has an invocation about the article of consumption from other terminal units 2 and 3 connected to a network 100 (step S301). For example, if there is an invocation from a terminal unit 2 and the article-of-consumption residue information which shows that the article of consumption of a terminal unit 2 reached the setting residue value is inputted (steps S301/YES) The order supervisory-control section 11 of a terminal unit 1 searches the database section 13. It judges whether there is enough inventory of the inputted supply (article of consumption) (step S302). When it is judged that there is no inventory, the purport which does not have an inventory to (step S302/NO) and the terminal unit 2 is answered (step S303), and it returns to step S301, and judges whether there is any invocation from other terminal units again.

[0026] In step S301, when there is no invocation from other terminal units, it judges whether (step S301/NO) and the order supervisory-control section 11 of a terminal unit 1 search the database section 12, and have enough inventory of a supply (article of consumption) (step S304).

[0027] In step S304, when an inventory of the supply (article of consumption) of a terminal unit 1 judges that there is fully nothing, to other terminal units connected to (step S304/NO) and the network 100, it asks about a supply (article of consumption), namely, broadcasts (step S305).

[0028] When the article-of-consumption residue data from each terminal unit are received to the inquiry about the article of consumption in step S305 (step S306), the order supervisory-control section 11 Search the database section 13 and the existence of the inventory of a supply (article of consumption) based on the article-of-consumption residue information that it was inputted is judged. It creates to a predetermined format, determining the order place of a required article of consumption, and using [ total article-of-consumption data, such as a name of article of the article of consumption judged that there is no inventory and a lot number, and ] the gathered article-of-consumption data as ordering data (step S307). The created ordering data transmits to the order place determined through the network communication section 12 by electronic mail, facsimile, etc. (step S308).

[0029] Thus, with this enforcement gestalt, it sets to the terminal unit connected to the network. When the residue of an article of consumption decreases, broadcasting (inquiry) about the information on the article of consumption to other terminal units connected to a network is performed. Since ordering data is totaled and order is performed when the residue of the article of consumption of other terminal units decreases, the number of times connected outside can be made to be able to mitigate, and the frequent order received in an order place can be prevented.

[0030] Drawing 4 is a flow chart which shows other examples of the network terminal unit which is the enforcement gestalt of this invention of operation. In drawing 4, the example of the terminal unit 1 to an article-of-consumption residue information input in case the data of the order limit per unit days of each article of consumption beforehand set as the database section 13 are stored of operation is shown.

[0031] First, it judges whether the order supervisory-control section 11 has an invocation about an article of consumption from other terminal units connected to a network 100 (step S401). In step S401, there is an invocation from a terminal unit 2. When the article-of-consumption residue information which shows that the article of consumption of a terminal unit 2 reached the setting residue value is inputted (steps S401/YES), the order supervisory-control section 11 When it judges whether the database section 13 is searched and there is enough inventory of the inputted supply (article of consumption) (step S402) and it is judged that there is no inventory, the purport which does not have an inventory to (step S402/NO) and the terminal unit 2 is answered (step S403). Moreover, when it is judged that there is enough inventory, no response is performed to (step S402/YES) and the invocation from a terminal unit 2.

[0032] In step S401, when there is no invocation from other terminal units, it judges whether (step S401/NO) and the order supervisory-control section 11 of a terminal unit 1 search the database section 12, and have enough inventory of a supply (article of consumption) (step S404):

[0033] When an inventory of the supply (article of consumption) of a terminal unit 1 judges that there is fully nothing in step S404 (steps S404/NO), [ whether the order supervisory-control section 11 searches the database section 13, and additional coverage is in the total order amount of a supply (article of consumption), and ] That is, when it judges whether the set-up total order amount is exceeded (step S405) and it is judged that additional coverage is in the total order amount, an inventory of a supply (article of consumption) is asked to (step S405/YES) and other terminal units (step S406).

[0034] In step S405, when it is judged that there is no additional coverage in the total order amount, the purport is notified to (step S405/NO) and other terminal units (step S411), the notice data to a manager are created (step S412), and the created notice data are transmitted to a manager in electronic mail (step S413).

[0035] The data to the inquiry in step S406 are received (step S407), and it judges again whether additional coverage is in the total order amount (step S408).

[0036] When it is judged in step S408 that additional coverage is in the total order amount, (step S408/YES), Based on the article-of-consumption residue information to which it replied from each terminal unit, the existence of an inventory of a supply (article of consumption) is judged. Article-of-consumption data, such as a name of article of the article of consumption judged that there is no inventory and a lot number, are gathered, and the order place of a required article of consumption is determined, and it edits and creates to a predetermined format as ordering data (step S409), and transmits to an order place through the network communication section 12 (step S410).

[0037] Thus, with this enforcement gestalt, since the order limit of an article of consumption is beforehand set up by the manager, the article-of-consumption residue information from each terminal is inputted, even when there are few inventories, it is lost that the order beyond budget is performed, and a budget control can be performed easily.

[0038] In addition, the enforcement gestalt mentioned above is the suitable enforcement gestalt of this invention, and deformation implementation is variously possible for it within limits which do not deviate from the summary of this invention. For example, in the flow chart shown in drawing 3 and drawing 4, although the example of the terminal unit 1 when an article-of-consumption residue information is inputted from the terminal unit 2 connected to a network 100 to a terminal unit 1 of operation is shown, when an article-of-consumption residue information is inputted from a terminal unit 2 from a terminal unit 3 to a terminal unit 3 as opposed to a terminal unit 1, it cannot be overemphasized that the same operation is performed.

[0039]

[Effect of the invention] In the terminal unit by which the network connection was carried out, residues, such as a required article of consumption, for example, a form, and a toner, are grasped, and ordering data is created based on the residue information, and in order to transmit the created ordering data to an order place through the means of electronic mail or facsimile, it is not necessary to make a facsimile function carry in each terminal unit, and to make it come on a network according to the network terminal unit of this invention so that more clearly than the above explanation to connect repeating installation.

[0040] Moreover, since informations, such as a name of article of an article of consumption, a lot number or a type number, an order place, and an order quantity, are stored according to the network terminal unit of this invention, the troublesome time of investigating and ordering the lot number of the article of consumption to fill up or a type number, an order place, and an order quantity can be saved, the work burden to an operator is mitigated, and an operator can raise the luminous efficacy of a task.

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[Translation done.]